

**REMARKS**

The Final Office Action mailed January 4, 2005, has been received and reviewed. Claims 1-5 and 8-26 are currently pending in the application. Claims 1-5 and 8-26 stand rejected. Applicants have amended claims 1, 10, 11, 14, 17, and 19-22, canceled claims 2 and 15, added new claims 27-31, and respectfully request reconsideration of the application as proposed to be amended herein.

Independent claims 1 and 14 have been amended to recite that the insulating material consists of the recited ingredients. Support for the amendment is found in the as-filed specification at at least paragraphs [0045]-[0051]. Claims 10 and 19 have been amended to clarify that mixtures, blends, or combinations of crosslinkable polymers may be used. Support for the amendment is found in the as-filed specification at at least paragraphs [0029], [0030], and [0056]. New claims 27-31 have been added. Support for the new claims is found in the as-filed specification at at least paragraphs [0044], [0045]-[0051], and [0056]. No new matter has been added.

**35 U.S.C. § 112 Claim Rejection**

Claims 1, 2, 14, and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully submit that this rejection is moot because claims 2 and 15 have been canceled.

**35 U.S.C. § 103(a) Obviousness Rejection**

**Obviousness Rejection Based on JP 08-127674**

Claims 1-5 and 8-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 08-127674 to Kazuo ("Kazuo"). Claims 2 and 15 have been canceled, rendering moot the rejection as to these claims. Applicants respectfully traverse the rejection as to the remaining claims, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for an obviousness rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The obviousness rejection of claims 1, 3-5, 8-14, and 16-26 is improper because the cited reference does not teach or suggest all of the claim limitations and does not provide a motivation to produce the claimed invention.

Kazuo discloses an antistatic rubber composition that includes a natural or synthetic rubber, a silica filler, and vapor-grown carbon fibers. Kazuo at the Abstract. The silica filler provides reinforcement to the rubber composition, which is oilproof and acid resistant. *Id.* at paragraphs [0005]-[0009], [0025], and [0033]-[0037]. The vapor-grown carbon fibers provide antistatic and spark-proof properties to the rubber composition. *Id.* at paragraphs [0025], [0026], and [0038]-[0051].

As proposed to be amended, claim 1 recites an insulating material for a rocket motor that consists of a cured elastomer, vapor-grown carbon fibers dispersed in the cured elastomer, and at least one of a secondary polymer, a plasticizer, a tackifier, an antioxidant, a flame retardant, a processing aid, carbon black, a pigment, a bonding agent, a cure activator, a cure accelerator, a cure agent, conventional carbon fibers, polybenzoxazole fibers, polybenzimidazole fibers, aramide fibers, ceramic clay, and talc.

Kazuo does not teach or suggest all of the limitations of claim 1 because Kazuo does not teach or suggest that its rubber composition consists of the recited ingredients. Since the transitional phrase "consists of" is recited in claim 1, claim 1 excludes any ingredients that are not specified in the claim. M.P.E.P. § 2111.03. As such, claim 1 excludes silica. In contrast, Kazuo teaches that silica is used in its rubber composition, as acknowledged by the Examiner. Office Action of January 4, 2005, p. 3-4. Specifically, Kazuo teaches that silica is used to reinforce the rubber composition.

Kazuo also provides no motivation to produce the claimed invention. Specifically, Kazuo does not provide any motivation to exclude silica from its rubber composition. In fact, Kazuo

clearly states that the silica is necessary to provide the desired properties to the rubber composition.

Since Kazuo does not teach or suggest all of the limitations of claim 1 and does not provide a motivation to produce the claimed invention, the obviousness rejection is improper and should be withdrawn.

Claim 3-5, 8-13, and 26 are allowable, *inter alia*, as depending from an allowable base claim.

New claims 27-29 are allowable, *inter alia*, as depending from an allowable base claim.

As proposed to be amended, claim 14 recites a method for making an insulating material for a rocket motor. The method comprises providing a composition that consists of at least one crosslinkable polymer, vapor-grown carbon fibers, and at least one of a secondary polymer, a plasticizer, a tackifier, an antioxidant, a flame retardant, a processing aid, carbon black, a pigment, a bonding agent, a cure activator, a cure accelerator, a cure agent, conventional carbon fibers, polybenzoxazole fibers, polybenzimidazole fibers, aramide fibers, ceramic clay, and talc. The vapor-grown carbon fibers are dispersed in the at least one crosslinkable polymer. The at least one crosslinkable polymer is crosslinked to form a cured elastomeric insulating material having the vapor-grown carbon fibers dispersed therein.

Kazuo does not teach or suggest all of the limitations of claim 14 because Kazuo does not teach the limitation of “providing a composition that consists of at least one crosslinkable polymer, vapor-grown carbon fibers, and at least one of a secondary polymer, a plasticizer, a tackifier, an antioxidant, a flame retardant, a processing aid, carbon black, a pigment, a bonding agent, a cure activator, a cure accelerator, a cure agent, conventional carbon fibers, polybenzoxazole fibers, polybenzimidazole fibers, aramide fibers, ceramic clay, and talc. Kazuo does not teach or suggest this limitation for substantially the same reasons as discussed above for claim 1. Specifically, Kazuo does not teach or suggest that its rubber composition consists of the recited ingredients. Kazuo also does not provide a motivation to produce the claimed invention for substantially the same reasons as discussed above for claim 1.

Since Kazuo does not teach or suggest all of the limitations of claim 14 and does not provide a motivation to produce the claimed invention, the obviousness rejection is improper and should be withdrawn.

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Claim 16-25 are allowable, *inter alia*, as depending from an allowable base claim.

New claims 30-31 are allowable, *inter alia*, as depending from an allowable base claim.

### ENTRY OF AMENDMENTS

The proposed amendments to claims 1, 10, 11, 14, 17, and 19-22 above and new claims 27-31 should be entered by the Examiner because the amendments and the new claims are supported by the as-filed specification and drawings and do not add new matter. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

### CONCLUSION

Claims 1, 3-5, 8-14, and 16-31 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, she is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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